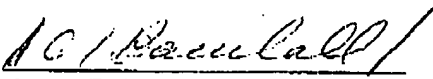


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Anne E. Barschall

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Ser. No.: 09/822,121 Group Art Unit: 2643

Filing Date: 3/30/2001

Examiner: WING F. CHAN

Attorney Docket Number PH-US 010080 Inventor Name(s): COLMENAREZ ET AL.

Confirmation #: 8881

Title: METHOD AND APPARATUS FOR AUDIO/IMAGE SPEAKER DETECTION
AND LOCATOR

Mail Stop Appeal Brief
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

REPLY BRIEF

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Sir:

This is a reply to the Examiner's Answer of July 5, 2006.

Bizarre file history

The filewrapper here is enormously complicated and confusing, at least partly due to two notices of non-compliance, which resulted in the appeal brief being re-submitted *after* the Examiner's answer and the reply brief had already been submitted. The re-submitted appeal brief differed only from the prior brief in the addition of two blank appendices at the end.

Now the Examiner has given a new answer, which seems mostly the same as before, but with a few changes. This seems odd. Appellants are not sure whether they are supposed to re-do the reply brief or not. But, just for good measure, they will do so here.

This convoluted history results in the odd situation of repeating issues previously resolved, e.g. the following statement from the prior reply brief:

Baker

Appellants omitted mention of the Baker reference from the brief in reliance on the Examiner's statements in a telephone conference that that reference would no longer be used. The interview summary referred to by the Examiner was apparently not provided to the undersigned in a timely fashion by the assignee of this application, so the undersigned was not aware of the Examiner's differing interpretation of the interview from that of the undersigned.

At least the Examiner appears now to recognize that the claims do not stand or fall together, as previously incorrectly stated.

Alleged admission with respect to Potts

The Examiner cites Applicants remarks of February 2004, p. 7, 2nd and 3rd full paragraph, as alleged admissions with respect to Potts. The exact statement here is

‘the documents that are incorporated herein by reference include detailed discussion of determining the direction of an audio source depending on video signals. For example, in WO 99/60788 on page 8 “A moving speaker, such as one giving a presentation, can be tracked by tracking his image.”’

This does not constitute an admission that the invention as claimed is disclosed, contrary to the statement of the Examiner.

Allegations of Appellants' knowledge of Potts and burden of proof

The Examiner mischaracterizes Appellants' knowledge of the Potts reference. Appellants submitted the reference to the PTO. This does not mean Appellants understand what the *Examiner* thinks the reference means. Having submitted the reference does not give Appellants ESP. Accordingly, the Examiner still needs to explain, pursuant to 37 CFR 1.104, how she is applying this complex reference.

The Examiner also misconstrues the burden of proof here. The burden of proof is upon the Examiner to make a *prima facie* case of obviousness, not upon the Appellant to correct and supplement the Examiner's rejection. Appellants respectfully submit that the Examiner's new directions to read enormous sections of a reference fails to comply with 37 CFR 104. If the Examiner is changing the rejection, the Examiner should issue a new office action or at least indicate that he is making new grounds of rejection.

The above statements are most certainly not a concession that Potts teaches or suggests anything in particular, only a statement of the Examiner's burden of proof, contrary to the malicious inferences drawn by the Examiner.

Clarification of rejection

The Examiner repeatedly states that the grounds of rejection have not been understood. That the prior wording of the office action was unclear and ambiguous and therefore may have misled the undersigned is not Appellants' fault. Since the rejection is re-done here, a new office action should have been issued.

Arguments revised in light of clarified rejection

Appellants nevertheless contend that the suggestion to combine the idea of an electronic pan/tilt/zoom system with multi-modal integration comes from the application, not from the references, and that the combination of the references is accordingly impermissible hindsight.

It is not obvious from the references how the EPTZ systems of Baker/Malkin could be integrated with the system of Potts. For instance, it is not at all clear how the camera motion sections of the face location algorithms, e.g. per pages 25-26 of Potts could be adjusted for an EPTZ system.

Arguments not presented below

The Examiner newly persists in failing to specify where the recitations of the various

dependent claims are allegedly taught or suggested in the references and newly mischaracterizes the law with respect to whether he needs to set forth rejections. In the face of the ambiguity of the wording of the rejections, and the lack of rejections against the dependent claims, lack of arguments below with respect to the dependent claims below is not particularly surprising. Appellants respectfully submit that the Examiner's new contention that these arguments should not be presented on appeal -- or that she can get away without specifying the grounds of rejection of the dependent claims -- is without basis in law.

Claims 1 & 10

Based on the newly refined rejection, Appellants would like to further note that claim 1 does not recite electronic pan/tilt/zoom. Accordingly, it is not clear why the Baker or Malkin reference would be applied to this claim.

The claim recites a stationary image pickup device, an audio pickup device, and means for processing. The means for processing allows determination of direction in this context. This is an extraordinarily improved device compared with Potts. Potts only allowed for determination of direction in the context of a much more complex, expensive, and unreliable device that happens to include mechanical pan/tilt/zoom. The fact that the

claims, with their extraordinary simplification could be achieved using EPTZ comes from Applicants' disclosure. None of the references teaches that EPTZ could be used in a device that determines direction in a video conferencing context. Accordingly, the combination is a result of impermissible hindsight.

Claim 10 is a method claim, which differs somewhat from claim 1 in that it does recite "refined image signals," but not EPTZ. Again it is not clear why Baker or Malkin would be applied to this claim.

This dysfunctional application of an irrelevant reference makes the rejection unclear – another reason why a new office action should issue.

Claims 2 and 11

Based on the newly clarified rejection, Appellants would particularly like to emphasize the recitations of these two claims.

Claim 2 recites an audio source localization system, a computer vision person detection system, and a multimodal speaker detection system. Because the multimodal system is a separate element, not part of the audio system or the vision system, the claimed system allows for a committee of experts approach. As set forth in the doctoral dissertation of inventor Gutta in 1998, and by other writers, the committee of experts approach is

typically an advantageous approach to integrating information.

By contrast, the Potts system shows location information being fed back and forth between video and audio systems, see e.g. Fig. 4. The complexity of coordinate conversion back and forth, per page 15 of the reference, makes it unlikely that this type of system could be readily adapted to electronic pan/tilt/zoom context. Moreover, the complexity of this back and forth approach shows the elegance and functional superiority of the distinct multi-modal integration system of claim 2. As a result, the structure of claim 2 is not taught or suggested by the references.

Claim 11 is similar to claim 2 in this respect.

Claim 7

Claim 7 further emphasizes that it is a multi-modal integration unit that provides signals to an EPTZ device. This recitation yields the functional advantage of allowing a committee of experts approach, to provide a single flow of control, rather than the back & forth approach of Potts. The Examiner has failed to indicate where this limitation is taught or suggested in the references.

Claims 9 and 25

In view of the clarification of the rejection, Applicants would like to point out how the system of these claims is enormously simplified with respect to Potts. The system has a stationary camera and only 2 microphones. By contrast, Potts requires a moving camera and 3 microphones. Applicants' system is clearly cheaper to manufacture and has less moving parts that could break down in operation. While Chu shows two microphones, Chu does not explain how two microphones can be used together with a complex system like Potts. Cobbling together 3 existing devices to arrive at a revolutionized device could not be done without reference to Applicants' disclosure.

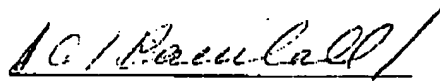
Again, claim 9 depends from claim 1, and therefore does not recite EPTZ, so it is again not clear why Baker/Malkin are applied.

Claim 25 similarly recites only two microphones and depends from claim 10.

Applicants respectfully submit that they have answered each issue raised by the Examiner and that the application is accordingly in condition for allowance. Such allowance is therefore respectfully requested.

Please charge any fees other than the issue fee to deposit account 14-1270.

Respectfully submitted,



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September 5, 2006